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10/525,713

Examiner

M. Alexandra Elve

Applicant(s)/Patent under Reexamination

HEISELE ET AL.

Art Unit

1725

| <b>→</b> | Rejected |
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| 11       | Allowed  |

| - | (Through numeral)<br>Cancelled |
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| ÷ | Restricted                     |

| N | Non-Elected  |
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| _ | Interference |

| A | Appeal   |
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| Claim                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |          |     |                                                  |          |           |          |          |          |            |          |                 |          |          |          |          |                 |          |          |          |          |           |           |                |     |                 |          |          |          |          |           |          |          |   |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|-----|--------------------------------------------------|----------|-----------|----------|----------|----------|------------|----------|-----------------|----------|----------|----------|----------|-----------------|----------|----------|----------|----------|-----------|-----------|----------------|-----|-----------------|----------|----------|----------|----------|-----------|----------|----------|---|
| Simple   S | Cla      | aim | Date                                             |          |           |          |          |          | Claim Date |          |                 |          |          |          |          |                 |          | Cla      | aim      | ∠ Date   |           |           |                |     |                 |          |          |          |          |           |          |          |   |
| Second   S |          |     | 3/31/07                                          |          |           |          |          |          |            |          |                 | Final    | Original |          |          |                 | :        |          |          |          |           |           |                |     |                 |          |          |          |          |           |          |          |   |
| Second   S | -        | 120 | $\vdash$                                         | Н        |           | $\neg$   |          | Н        |            | _        | $\dashv$        |          | 51       | Н        | Н        |                 | $\dashv$ | ┪        | ┪        | $\dashv$ | +         | ┥.        | -              | 101 | $\dashv$        | 7        | $\dashv$ | ┪        | ᅥ        | $\dashv$  | $\dashv$ | 十        | _ |
| 3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |          |     | _                                                | П        |           |          |          |          | -          |          |                 |          |          |          | П        | $\neg$          | $\neg$   | ┪        | 7        | $\dashv$ | 寸         | 1         |                |     | $\neg \uparrow$ | 7        | _        | ┪        | 寸        |           |          | 寸        | _ |
| 5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |          |     |                                                  | П        |           |          |          |          |            |          |                 |          |          |          | П        | $\neg$          |          | コ        |          | ╛        | $\neg$    | 1         |                |     |                 | ヿ        | 一        | ╗        | 一        |           |          | 寸        | _ |
| 6                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |          | 4   | V                                                |          |           |          |          |          |            |          |                 |          |          |          |          |                 |          |          |          |          |           | ]         |                |     |                 | $\Box$   |          |          |          |           |          |          |   |
| 7     8     107     108     109     100     100     100     100     100     100     100     100     110     110     110     111     111     111     111     111     111     111     111     111     111     111     111     111     111     111     111     111     111     111     111     111     111     111     111     111     111     111     111     111     111     111     111     111     111     111     111     111     111     111     111     111     111     111     111     111     111     111     111     111     111     111     111     111     111     111     111     111     111     111     111     111     111     111     111     111     111     111     111     111     111     111     111     111     111     111     111     111     111     111     111     111                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |          | _   |                                                  |          |           |          |          |          |            |          |                 |          |          |          |          |                 |          |          |          |          | $\Box$    |           |                |     |                 | $\Box$   |          |          |          |           |          | $\Box$   |   |
| Section   Sect | <u></u>  | _   | 1                                                | Ш        |           |          |          |          |            |          |                 |          |          |          |          | _               |          |          |          |          | $\perp$   | _         |                |     | $\Box$          |          |          | _        |          |           |          | $\Box$   |   |
| 9                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | <u> </u> |     | <u> </u>                                         | Ш        |           |          |          | Ш        |            |          | Щ               |          |          |          | Ш        | _               | _        | _        | _        | _        | 4         | 4         |                |     | $\perp$         | 4        | _        | _        | _        | _         |          | _        |   |
| 10                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | <u> </u> |     | ┡                                                | Н        |           |          | _        | Ш        | Н          | _        | Щ               |          |          |          | Н        |                 | $\dashv$ | _        | -        | -        | $\dashv$  | 4         |                |     | -               | 4        |          |          |          |           |          |          |   |
| 11     12     61     111     112     113     113     63     1113     113     113     113     113     113     113     114     115     115     116     115     116     115     116     116     116     116     116     116     117     118     118     118     118     118     119     68     1118     119     120     120     120     121     121     122     22     22     72     122     122     22     23     123     123     124     124     124     124     124     124     124     124     124     124     124     124     124     124     124     124     124     124     124     124     124     125     126     127     127     127     127     127     127     127     127     127     128     129     130     130     131     131     131     131     131     132     333     334                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | -        |     | -                                                | Н        | -         | _        |          | Н        | -          |          | Н               | -        |          | <u> </u> | $\vdash$ |                 | $\dashv$ | $\dashv$ | $\dashv$ | -        | -         | -         | -              |     | $\dashv$        | $\dashv$ | $\dashv$ |          |          | $\dashv$  | -        | $\dashv$ | _ |
| 12   13   62   112   113   14   64   1114   114   114   114   115   115   116   115   115   116   115   116   117   117   117   117   117   117   117   117   117   118   118   118   119   119   1120   1120   120   120   120   120   120   120   120   121   122   122   122   122   122   122   122   123   123   124   124   124   125   126   126   125   126   126   127   128   129   128   129   128   129   129   130   131   131   131   131   132   132   133   133   133   133   133   133   133   134   136   137   135   135   336   36   36   36   36   36   36   36   36   36   36   36   36   36   36   36   36   36   36   36                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | -        |     | -                                                | $\vdash$ |           |          |          | Н        |            |          | -               |          |          |          |          | $\dashv$        | $\dashv$ | -        | $\dashv$ | $\dashv$ | +         | $\dashv$  | <del>  -</del> |     | $\vdash$        | $\dashv$ | -        | $\dashv$ | $\dashv$ | $\dashv$  |          | $\dashv$ |   |
| 13                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | -        |     | ┢                                                | Н        | $\vdash$  | $\vdash$ | $\vdash$ | $\vdash$ | Н          |          | $\vdash$        | $\vdash$ |          | $\vdash$ | Н        | -               | $\dashv$ | -        | $\dashv$ | $\dashv$ | +         | $\dashv$  |                |     | $\vdash$        | +        | ┥        | $\dashv$ |          | $\dashv$  | $\dashv$ | $\dashv$ | - |
| 14     64     114     115     116     115     116     115     116     116     116     116     116     116     116     117     118     117     118     117     118     119     119     119     119     120     121     121     122     122     122     121     121     122     123     123     123     123     124     124     124     124     124     124     124     124     124     125     126     127     127     127     128     128     128     129     129     130     130     130     130     130     130     130     130     130     130     131     131     131     131     131     131     131     131     131     131     132     133     133     133     133     133     133     133     133     133     133     133     133     133     133     133     134     134     135     135                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | <u> </u> |     | $\vdash$                                         | Н        | $\vdash$  |          | $\vdash$ | Н        | Н          |          | $\vdash \vdash$ | $\vdash$ |          | Н        | Н        | $\dashv$        | $\dashv$ | ᅱ        | $\dashv$ | $\dashv$ | $\dashv$  | $\dashv$  |                |     | $\vdash$        | $\dashv$ | ┥        | -        | $\dashv$ | $\dashv$  | $\dashv$ | $\dashv$ | _ |
| 15                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | <b> </b> |     | 一                                                | Н        | $\dashv$  | $\dashv$ | Н        | Н        |            |          | $\dashv$        | -        |          | Н        | H        | -               | 一        | $\dashv$ | $\dashv$ | -+       | $\dashv$  | $\dashv$  |                |     | $\vdash$        | +        | $\dashv$ | $\dashv$ | $\dashv$ | +         | $\dashv$ | $\dashv$ | _ |
| 16   17   66   116   117   118   118   118   118   118   118   118   119   120   119   120   120   120   120   120   120   121   122   122   122   122   122   122   123   123   123   123   123   123   124   124   124   124   125   125   126   126   127   127   127   127   128   128   127   128   129   130   130   131   130   131   131   131   131   131   131   131   131   132   133   133   134   134   134   135   33   133   133   134   134   134   134   134   135   36   136   135   36   136   137   137   138   139   139   144   144   144   144   144   144   144   144   144   144   144   144   144   144   144   145   146   147 <td></td> <td></td> <td><math>\vdash</math></td> <td>П</td> <td><math>\neg</math></td> <td><math>\neg</math></td> <td></td> <td>Н</td> <td></td> <td></td> <td><math>\sqcap</math></td> <td></td> <td></td> <td><b> </b></td> <td>H</td> <td></td> <td></td> <td>T</td> <td></td> <td><math>\dashv</math></td> <td><math>\dashv</math></td> <td><math>\exists</math></td> <td></td> <td></td> <td><math>\vdash</math></td> <td>T</td> <td>1</td> <td>┪</td> <td></td> <td>1</td> <td><math>\dashv</math></td> <td>ヿ</td> <td>_</td>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |          |     | $\vdash$                                         | П        | $\neg$    | $\neg$   |          | Н        |            |          | $\sqcap$        |          |          | <b> </b> | H        |                 |          | T        |          | $\dashv$ | $\dashv$  | $\exists$ |                |     | $\vdash$        | T        | 1        | ┪        |          | 1         | $\dashv$ | ヿ        | _ |
| 17   18   66   118   118   118   119   119   119   120   119   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   120   121   120   120   120   120   121   120   120   121   122   123   123   122   123   123   122   123   124   124   124   124   125   126   126   126   126   126   127   127   127   127   127   127   127   127   127   128   129   129   129   129   129   130   130   131   131   131   131   131   131   131   131   132   132   132   132   133   133   133   133   133   133   134   134   134   134<                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |          |     |                                                  | П        |           |          |          |          |            |          | П               |          |          | Г        |          |                 |          |          |          | $\dashv$ | 寸         | 7         |                |     |                 |          |          | 一        |          | 寸         | T        | ヿ        |   |
| 19                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |          | 17  |                                                  |          |           |          |          |          |            |          |                 |          | 67       |          |          |                 |          | $\neg$   | T        |          | $\exists$ |           |                |     |                 | $\neg$   | $\neg$   |          |          |           |          | $\Box$   | _ |
| To   To   To   To   To   To   To   To                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |          |     |                                                  |          |           |          |          |          |            |          |                 |          |          |          |          |                 |          |          |          |          |           |           |                |     |                 |          |          |          |          |           |          |          |   |
| 21     71     72     121     122     122     122     122     122     123     124     124     124     124     124     124     125     125     126     125     126     126     127     127     128     128     128     129     129     129     130     130     130     130     130     130     130     130     130     130     133     133     133     133     133     133     133     133     133     133     133     133     133     133     134     134     134     134     134     134     134     134     134     135     136     136     136     137     137     137     137     137     138     138     138     138     138     138     138     139     140     141     141     142     142     142     142     142     142     142     143     144     144     144     145     146     146                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |          |     |                                                  |          |           |          |          |          |            |          |                 |          |          |          |          |                 |          |          |          |          |           |           |                |     |                 | $\Box$   | $\Box$   |          |          | $\Box$    |          |          |   |
| 22     3     122     123     123     124     123     124     124     125     125     125     125     126     126     127     127     128     126     127     127     128     129     129     130     130     130     130     131     131     131     131     131     132     133     133     133     133     133     133     133     133     133     133     133     134     134     134     135     136     136     136     137     137     138     138     138     138     139     140     141     140     141     141     142     142     142     142     142     142     143     144     144     144     144     146     146     146     146     147     147     147     147     147     147     147     147     147     147     147     147     147     147     147     147     147     147                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |          |     | _                                                | L        |           |          |          |          |            |          | Ш               |          |          | Ш        | Ш        |                 | _        | _        | _        |          | _         | _         |                |     | Ш               | _        | _        | _        |          |           |          | _        |   |
| 23   73   123   124     24   74   124   124     25   76   126   126     27   77   127   128     29   78   129   129     30   80   130   130     31   81   131   131     32   82   132   132     33   83   133   133     34   84   134   134     35   85   136   136     37   86   136   137     38   88   138   139     40   90   140   141     41   91   141   141     42   92   142   142     43   93   144   144     44   94   144   144     45   96   146   147                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | <u> </u> |     | <u> </u>                                         |          |           |          |          |          |            |          | Ш               |          |          | Ш        | Ш        |                 | _        | _        | _        | _        | 4         | _         |                |     |                 | 4        | _        | _        |          |           | _        | $\dashv$ |   |
| 24     74     124       25     75     125       26     76     126       27     77     127       28     78     128       29     79     129       30     80     130       31     81     131       32     82     132       33     83     133       34     84     134       35     85     135       36     86     136       37     87     137       38     88     138       39     89     139       40     90     140       41     91     141       42     92     142       43     93     143       44     94     144       45     96     146       47     97     147                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | <u> </u> |     | L                                                | _        |           |          | $\vdash$ | Ш        |            | _        | Н               | ļ        |          | <u> </u> | Ш        | $\dashv$        |          | _        | _        | 4        | 4         | _         | L              |     | $\dashv$        | 4        | _        | $\dashv$ | _        |           | _        | $\dashv$ |   |
| 25     75     125     126     126     126     126     126     127     128     127     128     128     129     128     129     129     129     130     130     130     130     131     131     131     131     131     131     131     132     132     132     133     133     133     133     133     134     134     134     134     134     134     135     135     135     136     136     137     137     137     137     138     138     138     138     139     140     140     141     141     141     141     142     142     142     142     143     144     144     144     144     144     145     146     146     146     146     146     147     147     147     147     147     147     147     147     147     147     147     147     147     147     147     147     147     147                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |          |     |                                                  | Ш        | _         |          |          | Н        | Н          | _        | Ш               |          |          | L        | Ш        | _               | _        | 4        | _        | 4        | 4         | 4         | <u> </u>       |     |                 | -        | 4        |          | $\dashv$ |           | _        |          |   |
| 26   76   126   127     27   77   78   128   128     29   79   129   130   130   130     31   81   131   131   131   132   132   133   133   133   133   133   133   134   134   134   134   134   135   135   136   135   136   137   137   136   137   137   138   138   138   138   138   138   139   140   141   141   141   141   141   142   142   142   143   144   144   144   144   145   145   146   146   146   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147   147                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |          |     | ┝                                                | Н        |           |          |          | -        | $\vdash$   |          | $\vdash$        |          |          | ┢        | Н        | $\dashv$        | -        | -        | $\dashv$ | +        | 4         | -         | -              | 124 | $\vdash$        | -        | $\dashv$ |          | $\dashv$ | -         | ┥        | -        | _ |
| 27     28     77     128     128     129     129     129     129     129     130     130     130     131     131     131     131     131     131     131     131     132     132     132     132     133     133     133     133     133     134     134     134     134     134     135     135     135     135     136     137     136     137     137     138     138     138     138     138     138     138     139     140     140     140     141     141     142     142     143     144     144     144     144     144     144     144     144     144     144     145     145     146     146     146     146     146     146     147     147     147     147     147     147     147     147     147     147     147     147     147     147     147     147     147     147     147                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | <u> </u> |     | ┢                                                | Н        |           |          | _        |          |            | _        | $\vdash$        | -        |          | ├        | -        |                 | $\dashv$ |          | -+       |          | -         |           |                |     |                 | $\dashv$ | ┥        | $\dashv$ |          | -         |          | $\dashv$ |   |
| 28     78     128       29     79     129       30     80     130       31     81     131       32     82     132       33     83     133       34     84     134       35     85     135       36     86     136       37     87     137       38     88     138       39     89     139       40     90     140       41     91     141       42     92     142       43     93     143       44     94     144       45     96     146       46     96     146       47     97     147                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |          |     | ├─                                               | Н        | Н         | _        | _        | $\vdash$ |            |          |                 |          |          | ╁        | H        | $\dashv$        | $\dashv$ | $\dashv$ | $\dashv$ | +        | +         | $\dashv$  |                |     | $\vdash$        | $\dashv$ |          | $\dashv$ |          | $\dashv$  |          |          |   |
| 29   79   129     30   80   130     31   81   131     32   82   132     33   83   133     34   84   134     35   85   135     36   86   136     37   88   136     39   88   138     39   89   139     40   90   140     41   91   141     42   92   142     43   94   144     44   94   144     45   95   145     46   96   146     47   97   147                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | <u> </u> |     | $\vdash$                                         | ┢┈       | $\vdash$  |          | -        | $\vdash$ | Н          | _        | Н               | $\vdash$ |          | ┢        | Н        | $\dashv$        | ᅱ        |          |          | -        | $\dashv$  | ⊣         | _              |     | $\vdash +$      | $\dashv$ |          | $\dashv$ | $\dashv$ | $\dashv$  | -        | $\dashv$ | _ |
| 30 80   31 130   32 131   33 132   33 133   34 134   35 85   36 136   37 86   39 88   40 90   41 91   42 92   43 93   44 94   45 96   46 97   130   131   131   132   133   134   135   136   137   138   139   140   141   141   142   43   44   45   96   146   47                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |          |     | ┢                                                | Н        | $\exists$ | _        |          |          |            | _        | $\vdash$        |          |          | ╁╌       | Н        |                 | _        | ┪        | ┪        | +        | -+        |           |                | 129 | H               | +        | -        | $\dashv$ | $\vdash$ | $\exists$ | _        | $\dashv$ |   |
| 31 81   32 131   33 83   34 84   35 85   36 86   37 87   38 88   39 88   40 90   41 91   42 92   43 93   44 94   45 96   46 96   47 147                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |          |     | $\vdash$                                         | П        | $\Box$    | _        | $\vdash$ |          |            | _        | Н               |          |          | T        |          |                 | ヿ        | ┪        | _        | _        |           | ┥.        |                |     | $\Box$          | $\dashv$ | ヿ        | $\neg$   |          |           | ╛        | ヿ        | _ |
| 32   82   132   133     33   83   133   134     35   85   135   135     36   86   136   137     38   87   137   137     38   88   138   139     40   90   140   141     41   91   141   141     42   92   142   142     43   93   143   144     44   94   144   144     45   96   146   147                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |          |     |                                                  | П        |           |          |          |          |            |          | П               |          |          | T        | П        |                 | ┪        | ヿ        | ╅        | 寸        | T         | ヿ         |                |     | H               | $\dashv$ | 一        |          |          | $\neg$    | $\neg$   | $\neg$   |   |
| 34   84   134     35   85   135     36   86   136     37   87   137     38   88   138     39   89   139     40   90   140     41   91   141     42   92   142     43   93   143     44   94   144     45   95   145     46   96   146     47   97   147                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |          |     |                                                  |          |           |          |          |          |            |          |                 |          |          |          |          |                 |          | ヿ        | T        | T        | T         |           |                | 132 |                 | 丁        |          |          |          |           |          |          |   |
| 35   85   135     36   86   136     37   87   137     38   88   138     39   89   139     40   90   140     41   91   141     42   92   142     43   93   143     44   94   144     45   95   145     46   96   146     47   97   147                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |          |     |                                                  |          |           |          |          |          |            |          |                 |          |          |          |          |                 |          |          |          |          |           |           |                |     |                 |          |          |          |          |           |          |          |   |
| 36   86   136     37   87   137     38   88   138     39   89   139     40   90   140     41   91   141     42   92   142     43   93   143     44   94   144     45   95   145     46   96   146     47   97   147                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |          |     |                                                  |          | Ш         |          |          |          |            |          |                 |          |          | 匚        |          |                 | $\Box$   | $\Box$   | J        | $\Box$   | $\Box$    |           |                |     | П               | J        |          |          |          | $\Box$    | $\Box$   |          |   |
| 37   87   137     38   88   138     39   89   139     40   90   140     41   91   141     42   92   142     43   93   143     44   94   144     45   95   145     46   96   146     47   97   147                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |          |     | 上                                                | $\sqcup$ | Ш         | Ш        | L        |          | Ш          | _        | Ш               |          |          |          | Ш        | Ш               | ļ        | _        |          | _        | $\dashv$  | _         | L              |     | $\sqcup$        | _        |          | _        |          |           | _        |          |   |
| 38   88   138     39   90   139     40   90   140     41   91   141     42   92   142     43   93   143     44   94   144     45   95   145     46   96   146     47   97   147                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | <u> </u> |     | _                                                | <u> </u> | Ш         | Щ        | L        | <u> </u> | $\vdash$   |          | Щ               | $\vdash$ |          | $\vdash$ | Ш        | Ш               |          | 4        | _        | 4        | 4         | _         | <u></u>        |     | $\sqcup$        | 4        | _        |          | Ш        |           | _        | _        |   |
| 39   89   139     40   90   140     41   91   141     42   92   142     43   93   143     44   94   144     45   95   145     46   96   146     47   97   147                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | <u> </u> |     | <b> </b>                                         | 1        | $\sqcup$  | <u> </u> | <u> </u> | <u> </u> | $\vdash$   | _        | Щ               | <u> </u> |          | <b>—</b> | Щ        | $\vdash$        | _        | _        | _        | _        | -         | 4         | <u> </u>       |     | $\sqcup$        | 4        | 4        |          | -        | _         | _        | _        |   |
| 40 90   41 91   42 92   43 93   44 94   45 95   46 96   47 97                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | -        |     | ⊢                                                | -        | Н         | $\vdash$ | $\vdash$ | $\vdash$ | $\vdash$   | <u> </u> | Щ               | <u> </u> |          | $\vdash$ | H        | $\vdash$        |          | -        |          | -        | $\dashv$  | 4         | <u> </u>       |     | $\vdash \vdash$ | $\dashv$ | _        |          |          |           |          |          |   |
| 41 91   42 92   43 93   44 94   45 95   46 96   47 97                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | -        |     | $\vdash$                                         | -        |           | -        | -        |          | $\vdash$   | -        | Н               | <u> </u> | 89       | $\vdash$ | $\vdash$ | $\vdash$        | $\dashv$ | $\dashv$ | -        | $\dashv$ | -+        | $\dashv$  | <u> </u>       |     | ⊢⊹              | $\dashv$ |          |          | $\vdash$ | $\vdash$  |          | $\dashv$ |   |
| 42 92   43 93   44 94   45 95   46 96   47 97                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | -        | 40  | ╁                                                | $\vdash$ | $\vdash$  | $\vdash$ | $\vdash$ | $\vdash$ | $\vdash$   | <b>—</b> | $\vdash\vdash$  | -        | 90       | $\vdash$ | $\vdash$ | $\vdash \vdash$ |          | $\dashv$ | -        | $\dashv$ | $\dashv$  | $\dashv$  | -              | 140 | $\vdash$        | +        | $\dashv$ | -        |          | $\dashv$  | -        |          |   |
| 43 93   44 94   45 95   46 96   47 97                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | $\vdash$ |     | $\vdash$                                         | $\vdash$ | $\vdash$  | $\vdash$ | $\vdash$ | -        | $\vdash$   | -        | $\dashv$        | -        |          | H        | -        | $\vdash$        | $\dashv$ | $\dashv$ | ┰        | $\dashv$ | $\dashv$  | $\dashv$  | $\vdash$       |     | $\vdash \vdash$ | $\dashv$ | $\dashv$ |          | $\vdash$ | -         | $\dashv$ | $\dashv$ |   |
| 44 94 144   45 95 145   46 96 146   47 97 147                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 1-       |     | <del>                                     </del> | $\vdash$ |           | -        | $\vdash$ | _        | $\vdash$   | -        | H               | <b>—</b> |          | $\vdash$ | $\vdash$ | $\vdash \vdash$ | ᅱ        | $\dashv$ | $\dashv$ | $\dashv$ | $\dashv$  | $\dashv$  | <b>—</b>       | 143 | $\vdash$        | +        | -        | -        |          | $\vdash$  | ᅱ        | $\dashv$ | _ |
| 45                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |          |     | <del>                                     </del> | $\vdash$ |           |          | М        | $\vdash$ | $\vdash$   | Н        | $\vdash$        |          | 94       | т        | Н        | $\vdash$        | $\neg$   |          | +        | $\dashv$ | $\dashv$  | $\dashv$  |                |     | H               | $\dashv$ | -        |          | $\vdash$ | -         |          | $\dashv$ | _ |
| 46                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |          |     | $\vdash$                                         |          | $\Box$    |          | Г        | Π        | Г          |          | Н               |          |          | Т        |          | $\vdash$        |          | $\dashv$ | 寸        | _†       | _         | ヿ         |                |     | $\sqcap$        | ┪        | 一        |          | Н        |           | $\dashv$ | ╛        | _ |
| 47 97 147                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |          | 46  |                                                  |          |           |          |          |          |            |          |                 |          | 96       | П        |          | $\Box$          |          | $\neg$   | 寸        | $\dashv$ | $\neg$    | $\neg$    |                | 146 | $\Box$          |          |          |          |          |           |          | $\dashv$ | _ |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |          | 47  |                                                  |          |           |          |          |          |            |          |                 |          | 97       |          |          |                 |          |          |          | _1       |           |           |                | 147 |                 | ╛        | _        |          |          |           |          |          | _ |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |          | 48  |                                                  |          |           |          |          |          |            |          |                 |          | 98       |          |          |                 |          |          |          |          | J         |           |                | 148 |                 |          |          |          |          |           |          |          | _ |
| 49 99 149                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |          |     | L                                                |          | Ш         |          | L.       | L_       |            |          | Ш               |          | 99       | 匚        | 匚        |                 |          |          |          | $\Box$   | $\Box$    |           |                | 149 | Ш               | $\Box$   | $\Box$   |          |          |           | $\Box$   | $\Box$   |   |
| 50 100 150                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | L        | 50  | <u> </u>                                         | L        | Ш         | Ш        | L        | l        | L          | _        | Ш               | L        | 100      | _        |          | Ш               | $\sqcup$ |          |          |          |           |           | L_             | 150 | Ц               | Ц        |          |          | Ш        |           |          |          |   |